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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,347	07/09/2003	Anssi Liuhto	60279.00057	8710

32294 7590 02/15/2006

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EXAMINER	
NGUYEN, THANH T	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,347	LIUHTO ET AL.	
	Examiner	Art Unit	
	Tammy T. Nguyen	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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Detailed Office Action

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 29, 2005 has been entered.
2. Claims 4, and 11 are canceled.
3. Claims **1-3, 5-10, and 12-15** are presented for examination.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 5-10, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia et al.., (hereinafter Bhatia) U.S. Patent No. 6,118,768 in view of Carroll et al., (hereinafter Carroll) U.S. Patent No. 6,657,951.

6. As to claim 1, Bhatia teaches the invention as claimed, including system for transmitting internal messages in a local network while maintaining message synchronism, comprising: multiple sending computer units (CPUs), each for running at least one sending application process for sending an internal message, said message being sent to two or more recipients (user 7-10 of fig.2C) (see col.11, lines 1-58, and col.12, line 65 to col.13, line 63), and multiple receiving computer units (CPUr), each for running at least one receiving application process for receiving a sent internal message, at least two copies of each receiving application process residing in said receiving computer units (fig.2C) (see col.11, lines 1-58), characterized in, that the system further comprises: one interface unit (IF) per one or more computer units for buffering and relaying messages sent to and from the corresponding computer units (it is inherent because every device network has to have Interface Unit), multiple external links (SrL), each for linking a computer unit to its corresponding interface unit (links from10g-10j connect to Lan 300 of fig.2C) (see col.26, lines 49-65), and an internal interconnecting device (IxD) for receiving messages relayed by the interface units corresponding to the sending computer units, and for forwarding each received message to the interface units corresponding to the respective receiving computer units one received message at a time, said interconnecting device internally coupled with the interface units (Ethernet Hub 340 of

fig.1) (see col.16, lines 8-25), and wherein at least one of said external links and internal interconnecting device are arranged to route an internal message sent by a sending application process to a receiving application process running in the a same computer unit via said interconnecting device (see fig.2C). But Bhatia does not explicitly teach internal interconnecting device are arranged to forward an identical copy of an internal message, sent by one of said sending application processing, to each of the at least two copies of a corresponding receiving application process for receipt in identical order. However Carroll teaches internal interconnecting device are arranged to forward an identical copy of an internal message, sent by one of said sending application processing, to each of the at least two copies of a corresponding receiving application process for receipt in identical order (see col.6, lines 5-52). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Carrooll into the computer system of Bhatia to have device are arranged to forward an identical copy of an internal message, sent by one of said sending application processing, to each of the at least two copies of a corresponding receiving application process for receipt in identical order because it would have provided specific functions that can reduce of the redundancy path for traffic in a system.

7. As to claim 2, Bhatia teaches the invention as claimed, characterized in that each interface unit further comprises: a transmitting buffer (TX) for storing one or more message to be sent until processed by the interconnecting device, and a receiving buffer (RX) for storing one or more received messages until processed by the corresponding computer unit (see col.27, lines 27-62).

8. As to claim 3, Bhatia teaches the invention as claimed, characterized in that messages are sent as multicasts by the sending application process (see col.36, lines 6-38).
9. As to claim 5, Bhatia teaches the invention as claimed, characterized in that the interconnecting device is an internal bus (Bus 390 of fig.3) (see col.15, lines 25-63).
10. As to claim 6, Bhatia teaches the invention as claimed, characterized in that the interconnecting device is a crossbar (it is inherent because when have switch in the network the switch should be switched in so many different cross ways).
11. As to claim 7, Bhatia teaches the invention as claimed, characterized in that the interconnecting device and the interface units coupled to it are implemented as a modified LAN switch (see col.17, lines 20-39).
12. As to claim 8, Bhatia teaches the invention as claimed, including system for transmitting internal messages in a local network while maintaining message synchronism, comprising: multiple sending computer units (CPUs), each for running at least one sending application process for sending an internal message, said message being sent to two or more recipients (user 7-10 of fig.2C) (see col.11, lines 1-58, and col.12, line 65 to col.13, line 63), and multiple receiving computer units (CPUr), each for running at least one receiving application process for receiving a sent internal message, at least two copies of each receiving application process residing in said receiving computer units (fig.2C) (see col.11, lines 1-58), characterized in, that the system further comprises: one interface unit (IF) per one or more computer units for buffering and relaying messages sent to and from the corresponding computer units (it is inherent because every device network has to have Interface Unit), multiple external links (SrL), each for linking a

computer unit to its corresponding interface unit (links from10g-10j connect to Lan 300 of fig.2C) (see col.26, lines 49-65), and an internal interconnecting device (IxD) for receiving messages relayed by the interface units corresponding to the sending computer units, and for forwarding each received message to the interface units corresponding to the respective receiving computer units one received message at a time, said interconnecting device internally coupled with the interface units (Ethernet Hub 340 of fig.1) (see col.16, lines 8-25), and wherein at least one of said external links and internal interconnecting device are arranged to route an internal message sent by a sending application process to a receiving application process running in the a same computer unit via said interconnecting device (see fig.2C). But Bhatia does not explicitly teach internal interconnecting device are arranged to forward an identical copy of an internal message, sent by one of said sending application processing, to each of the at least two copies of a corresponding receiving application process for receipt in identical order. However Carroll teaches internal interconnecting device are arranged to forward an identical copy of an internal message, sent by one of said sending application processing, to each of the at least two copies of a corresponding receiving application process for receipt in identical order (see col.6, lines 5-52). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Carrooll into the computer system of Bhatia to have device are arranged to forward an identical copy of an internal message, sent by one of said sending application processing, to each of the at least two copies of a corresponding receiving application process for

receipt in identical order because it would have provided specific functions that can reduce of the redundancy path for traffic in a system.

13. As to claim 9, Bhatia teaches the invention as claimed, characterized in that each interface unit further comprises: a transmitting buffer (TX) for storing one or more message to be sent until processed by the interconnecting device, and a receiving buffer (RX) for storing one or more received messages until processed by the corresponding computer unit (see col.27, lines 27-62).
14. As to claim 10, Bhatia teaches the invention as claimed, characterized in that messages are sent as multicasts by the sending application process (see col.36, lines 6-38).
15. As to claim 11, Bhatia teaches the invention as claimed, characterized in that messages sent and received by application processes running in the same computer unit are routed via the interconnecting device (router 305 of fig.1).
16. As to claim 12, Bhatia teaches the invention as claimed, characterized in that the interconnecting device is a crossbar (it is inherent because when have switch in the network the switch should be switched in so many different cross ways).
17. As to claim 13 Bhatia teaches the invention as claimed, characterized in that the interconnecting device is an internal bus (Bus 390 of fig.3) (see col.15, lines 25-63).
18. As to claim 14, Bhatia teaches the invention as claimed, characterized in that the interconnecting device and the interface units coupled to it are implemented as a modified LAN switch (see col.17, lines 20-39).

19. As to claim 15, Bhatia teaches the invention as claimed, characterized in that a multiplexer unit is connected to an interface unit via another multiplexer unit (col.20, line 51 to col.21, line 5).

Response to Arguments

20. Applicants argue that Bhatia does not teach multiple external links for linking a computer unit to its corresponding interface unit. In response to Applicant's argument, the Patent Office maintain the rejection because Bhatia teaches multiple external links for linking a computer unit to its corresponding interface unit as shown in col.26, lines 49-65. Bhatia clearly shows multiple external links for linking a computer unit.

21. Also, Applicant's arguments with respect to claims 1-3, 5-10, and 12-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

22. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(571) 272-3929**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, David Wiley, may be reached at **(571) 272-3923**.

TTN
February 2, 2006

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100